Office Action Summary	Application No.	Applicant(s)	
	10/510,224	SCHAETZER ET AL.	
	Examiner	Art Unit	
	Helen Mei-Ping Chui	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/01/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Action

The Examiner acknowledges receipt of application number 10/510,224 filed on 10/01/2004. Claims 1-10 are presented for examination on the merits for patentability.

Comment: (i) claim 5, line 2, the term "comprises as active" should be "comprises an active". (ii) claim 5, line 3-4, the term "a mixture of ab) an amount ....." should be "a mixture of (a) an amount ....". Applicant is required to correct the typographical errors.

Priority

Acknowledgment is made of applicant's claim for PCT application (PCT/EP03/03471 filed on 04/02/2003), which claimed foreign priority based on an application filed in Switzerland No. 559/02 on 03/04/2002. However, it is noted that applicant has not filed a certified English translated copy of the Switzerland No. 559/02 application as required by 35 U.S.C. 119(b).

Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action (see 37 CFR 41.154(b) and 41.202(e).

Claim Rejections - 35 USC § 112 second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(1) **Claim 1** recites the term "customary inert formulation adjuvants". Although several examples of the customary inert formulation adjuvants are disclosed in the specification (see specification: page 23, line 8); however, this term is not defined by the specification, and the specification does not provide a standard for ascertaining what customary inert adjuvants are included and what are not included, other than those disclosed in the specification. Therefore, one of ordinary skill in the art would not be reasonably apprised of the scope of the invention, and thus renders the claim indefinite.

Claims 2-10 are also rejected because they depend from claim 1, and thus incorporates their limitation.

(2) **Claim 1** is rejected 35 U.S.C. 112, second paragraph, because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "parenthesis" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 1 recites the broad range "mixture of metolachlor and S-metolachlor, preferably mixture thereof containing 50-90%", and the claim also recites "especially 70-90%", which is the narrower recitation of the range.

Claims 2-8 are also rejected because they depend from claim 1, and thus incorporates their limitation.

(3) **Claims 5 and 9** are rejected for reciting the indefinite phrase "such as" in the claims because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 6-8 and 10 are also rejected because they depend from claims 5 and 9, and thus incorporates their limitation.

(4) **Claim 7** is rejected for reciting the limitation of "safener" in the claim because the term "safener" is not recited in its previous dependent claims (claims 5 and 6). Therefore, there is insufficient antecedent basis for this limitation in the claim.

For examination purpose, the examiner interprets the "safener" in claim 7 as the same "herbicide antagonism" compound recited in claim 5 for the following rejection.

(5) **Claim 7** recites that "the rate of application of herbicides is from ..... and the rate of application of safener is from ..... per ha", according to its previous dependent claims 5 and 6. Since claims 5 and 6 recite a method of using "**a mixture** of herbicides in combination with a herbicide antagonist" for selective control of weeds and grasses in crops; therefore, it is unclear whether the application of herbicides and the safener are applied in 2 steps, which the herbicides are applied first follow by the safener, or the herbicides and the safener are applied as "a mixture" in one step to the weeds and grasses. Thus, it renders the claim indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:.

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

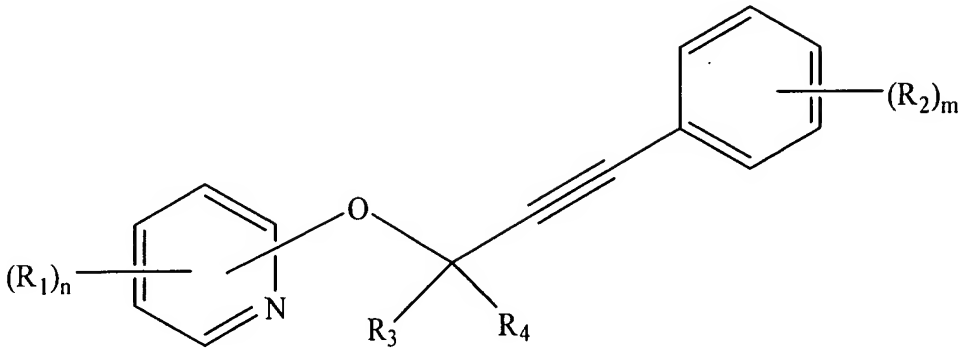
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaetzer et al. (WO 02/28182) in view of Wellmann et al. (U. S. Patent No. 6,849,578).

Applicant Claims

Applicants claim a herbicidal composition comprising a mixture of (**a**) a herbicidal compound of formula (I) (see structure below), (**b**) a co-herbicide as recited therein, and (**c**) a

safener as recited therein, and in combination with (**d**) inert adjuvants, i.e. carriers, solvents and wetting agents:

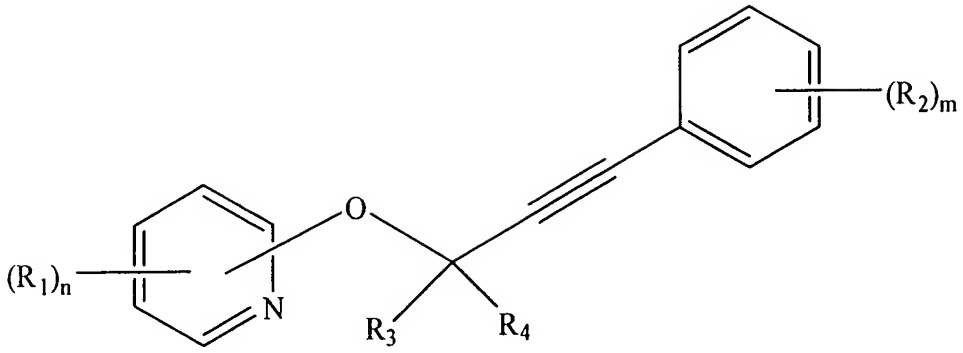


herbicidal compound of formula (I)

Applicants also claim a method of controlling undesired plant growth, i.e. weeds and grasses, in a crop of useful plants, i.e. cereals, rice or maize, using said herbicidal mixture.

Determination of the scope and content of the prior art (MPEP 2141.01)

Schaetzer et al. teach a herbicidal composition comprising a phenyl propynyloxy-pyridine compound of formula (I) (see page 1; page 48, claim 1 and see structure below):



phenyl propynyloxy-pyridine compound of formula (I)

It is noted that the substituents of phenyl propynyloxy-pyridine compound teach in Schaetzer et al. corresponds to the substituent in the instant claims as follows:

Substituent (instant claims)	Substituent (Schaetzer et al.)
R_1	R_1
R_2	R_2
R_3	R_3
R_4	R_4
m	m
n	n

Schaetzer et al. teach that the substituent $\mathbf{R_1}$ = halogen, CN, SCN or NO_2 and as recited therein (page 1, line 10 and thereon); $\mathbf{R_2}$ = halogen, CN, NO_2 and as recited therein (page 5, line 8 and thereon); $\mathbf{R_3}$ and $\mathbf{R_4}$ = independently a hydrogen, halogen, CN, C_1-C_4 alkyl, C_1-C_4 alkoxyl

or together as C_2-C_5 alkylene (page 2, lines7-9); **m** = 0, 1, 2, 3, 4 or 5 (page 4, line 3), and **n** = 0, 1, 2, 3 or 4 (page 1, line 9).

Schaetzer et al. teach that the herbicidal composition can further comprise other active ingredients or fertilizers (page 23, lines 17-20), as well as one or more solid or liquid adjuvants, i.e. solvents, solid carriers and surface-active agents (page 22, lines 24-28 and page 56, claim 3).

Schaetzer et al. also teach that the composition is suitable for agricultural use in crop plants of useful plants, i.e. cereals, maize or rice (page 23, lines 27-29).

Schaetzer et al. also teach that the composition can be used to control undesired plant growth by applying the composition to the plants or to the locus at rates of application from 0.001 to 4 kg per ha (1 to 4000 g per ha). However, the concentration required to achieve the desired herbicidal action depends on the type of action, the development stage of the crop plant and the weed, as well as depends on the location, the time and the method of application, which can be determined by experimentation over a wide range of conditions (page 23, lines21-26 and page 56, claims 3-4).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Schaetzer et al. do not explicitly teach a safener and co-herbicides as the other active ingredients present in the composition. However, this deficiency is cured by the teaching of Wellmann et al.

Wellmann et al. teach a selective herbicidal composition comprising a mixture of a substituted pyridine derivative, a co-herbicides and a crop-plant-compatibility improving compound (also known as safener or antidote) in effective amount, which can be further mixed with solvents, carriers and surface-active agents (column 15, lines 36-39).

Wellmann et al. teach that a co-herbicide, i.e. flufenacet, propoxycarbazone-sodium, methabenzthiazuron, mefenacet or fluazolate (column 2, lines 4-34), and a crop-plant-compatibility improving compound, i.e. fluxofenim, fenclorim, benoxacor, cloquintocet, fenchlorazol-ethyl, flurazole, furilazole or mefenpyr-diethyl, can be included in the composition (column 2, lines 42-44, 46, 50, 52-53 and 66).

Wellmann et al. teach that while the presence of more than one active herbicides in the composition broaden the herbicidal activity for selective control of weeds in various useful crop plants (column 1, lines 41-44 and column 13, lines 50-59), the addition of at least one safener in the composition is capable of antagonizing and preventing the damage of a herbicide on the crop plants, i.e. cereals, maize, rice and wheat (column 1, lines 36-44 and column 14, lines 5-7 and 14-17).

Wellmann et al. further teach a method of selective weeds control employing the herbicidal composition to treat all plants and parts of plants, wherein the parts of plants include seeds, cuttings or area where harvested crops are grown (column 14, lines 46-51 and 56-64).

Finding of prima facie obviousness Rational and Motivation
(MPEP 2142-2143)

It would have been obvious to a person of ordinary skilled in the art at the time the invention was made to look to the teachings of Schaetzer et al. and Wellmann, et al. to arrive at the instantly claimed invention.

One of ordinary skill would have been motivated to utilize a co-herbicide and a safener in the composition with a reasonable expectation of success because it is known in the art, namely Wellmann et al., that additional herbicide can broaden the herbicidal effect for better weeds control and the addition of a safener can protect crop plants from herbicide damage without reducing the herbicide's property in target weeds control.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because the combined teachings of the prior art fairly suggests the instant claims.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaetzer et al. (WO 02/28182) in view of Davies, J. (Pesticide Outlook, 2001: February, 10-15).

Applicant Claims

Applicants claim a herbicidal composition comprising a mixture of (**a**) a herbicidal compound of formula (I) (see structure below) and (**b**) a safener as recited therein, in combination with (**c**) inert adjuvants, i.e. carriers, solvents and wetting agents. Applicants also claim a method of selective control of weeds and grasses in crops of useful plants.

Determination of the scope and content of the prior art (MPEP 2141.01)

The teaching of Schaetzer et al. has been set forth above. Essentially Schaetzer et al. teach a herbicidal composition comprising a phenyl propynyloxy-pyridine compound of formula (I) (see page 1; page 48, claim 1).

Schaetzer et al. teach that the herbicidal composition can further comprise other active ingredients or fertilizers (page 23, lines 17-20), as well as one or more solid or liquid adjuvants, i.e. solvents, solid carriers and surface-active agents (page 22, lines 24-28 and page 56, claim 3).

Schaetzer et al. also teach that the composition can be used to control undesired plant growth by applying the composition to the plants or to the locus (page 23, lines21-26).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Schaetzer et al. do not explicitly teach to combine a safener in the composition for selective weed control. However, this deficiency is cured by the teaching of Davies, J.

Davies, J. teaches that herbicide safeners selectively protect crop plants from herbicide damage without reducing activity in target weed species. In general, their use is to improve herbicide selectivity between crop and weed species, and can be applied as a mixture with herbicide (page 10, left column: lines 1-5). Davies, J. also teaches that the major role of a safener is to enable the development of molecules with favorable environmental toxicology,

whose use would otherwise be limited by poor selectivity (page 10, right column, section Safeners enable the use of environmentally-safe herbicides: lines 1-4).

Davies, J. further teaches some common herbicide safeners specialize for use in wheat, maize and cereals crops, i.e. fluxofenim, fenclorim, benoxacor, cloquintocet, fenchlorazol-ethyl, flurazole, furilazole or mefenpyr-diethyl (page 11, Table 1).

Finding of prima facie obviousness Rational and Motivation
(MPEP 2142-2143)

It would have been obvious to a person of ordinary skilled in the art at the time the invention was made to look to the teachings of Schaetzer et al. and Davies, J. to arrive at the instantly claimed invention.

One of ordinary skill would have been motivated to utilize a safener in a herbicide formulation with a reasonable expectation of success because it is known in the art, namely Davies, J., that safeners can protect crop plants from herbicide damage without reducing activity in target weed species and can be applied together with a herbicide.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because the combined teachings of the prior art fairly suggests the instant claims.

Notes to the Applicant

Applicant cannot rely upon the foreign priority papers to overcome the above rejections

because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

No claims are allowed.

Contact Information

Any inquiry concerning this communication from the Examiner should direct to Helen Mei-Ping Chui whose telephone number is 571-272-9078. The examiner can normally be reached on Monday-Thursday (7:30 am – 5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where the application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either PRIVATE PAIR or PUBLIC PAIR. Status information for unpublished applications is available through PRIVATE PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the

PRIVATE PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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